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Mr. Mortimer A. Gelston, Chairman
Connecticut Siting Council
136 Main Street, Suite 401
New Britain, CT 06051

**CONNECTICUT
SITING COUNCIL**

Dear Chairman Gelston:

Enclosed please find a Notice of Intent to Modify an Exempt Tower and Associated Equipment for facilities owned and operated by the State of Connecticut Department of Public Safety located on Butternut Hollow Road in Greenwich, Connecticut. The Springwich Cellular Limited Partnership (SCLP) proposes to add antennas to an existing lattice style tower and install associated radio equipment inside the existing equipment building to provide cellular telecommunications services.

The attached pages detail the required information. As is shown in the attachment, the proposed addition meets all the necessary criteria established in the Regulations of Connecticut State Agencies Section 16-50j-72(b) (2), and is thus an exempt facility pursuant to Section 16-50j-73.

Please record me as counsel for SCLP in this matter and in all correspondence from the Council.

Thank you for your cooperation.

Very truly yours,

A handwritten signature in blue ink that reads "Peter J. Tyrrell".

copy to: Honorable John B. Margenot, Jr., First Selectman, Town of Greenwich

Mr. George Davis, Connecticut State Police

GREENWICH

Pursuant to Section 16-50i(a)(5) of the Connecticut General Statutes and Section 16-50j-72(b)(2), as amended, of the Regulations of Connecticut State Agencies, the Springwiche Cellular Limited Partnership (SCLP) hereby notifies the Connecticut Siting Council that it intends to modify an existing telecommunications facility by adding cellular service antennas to an existing lattice style tower and installing associated radio equipment inside an existing equipment building. The site is owned by the State of Connecticut Department of Public Safety and is located on Butternut Hollow Road in Greenwich, Connecticut. The Siting Council granted a Certificate for this facility in Docket No. 150.

Background

The proposed facility is situated at the site of a 180 foot lattice style communications tower and associated equipment building owned by the State of Connecticut Department of Public Safety. At present, primary tower users are the Connecticut State Police, Bell Atlantic Mobile, the Town of Greenwich and Northeast Utilities. The site was placed in service in 1993.

Adjacent to the tower is a multi-room equipment building constructed to house all the radio equipment to be used at the site.

Discussion

SCLP proposes to install nine, 4 foot tall directional antennas on the tower to supplement and improve its cellular coverage in northern Greenwich and along the Merritt Parkway (Rt. 15). The antennas will be mounted at the 105 foot level of the tower.

The cellular equipment used to operate the antennas will be placed inside the equipment building in an area referred to as the "Agency Room". No equipment will be located outside the building.

The power density in the mobile and cellular frequency bands is set forth below. The levels shown indicate the total power density in milliwatts per square centimeter, and have been calculated at the base of the tower.

<u>Service</u>	<u>Power Density</u>	<u>Connecticut Standard</u>	<u>Percent of Standard</u>
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(FOR ALL EXISTING SERVICES REFER TO EXHIBIT A)

SCLP	0.2748	2.9333	9.37
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The current Connecticut (and ANSI) power density level standards for non-ionizing radiation for controlled environments are shown above. The levels demonstrated in this case are well below the standard levels.

Conclusion

The proposed addition does not constitute a "modification" of an existing facility as defined in Connecticut General Statutes Section 16-50i(d). This is because there is no change in the tower's height. There is no extension of the boundaries of the site. There will be no increase in noise levels at the site's boundary by six decibels or more, and the total radio frequency electromagnetic radiation is not at or above the standard set forth in Section 22(a)-162 of the Connecticut General Statutes. This addition will not have a substantially adverse environmental effect.

For the reasons discussed above, SCLP requests that the Council acknowledge that this Notice of Modification meets the Council's exemption criteria.

STATE POLICE TOWER - BUTTERNUT HOLLOW ROAD, GREENWICH

The Power Density Analysis shown on attached Sheet 1 of 3 for the existing 17 Radio/Antenna Systems at this location was prepared by T-CAS Corporation, consultants for the Connecticut State Police, for Docket No. 150. This analysis was done using the 1982 ANSI Standard, which used a single power density standard for all transmitting environment locations.

When SCLP recalculated the power densities for the Bell Atlantic Mobile antennas because of their relocation on the tower (see below), we found that all submitted "Power Density" figures were understated by one decimal place, or by a factor of ten. Thus the "Total Percent Of Safe Limit" figure should have been 25.747, not 2.5747.

The revised 1991 ANSI Standard created two standards, one for controlled environments and one for uncontrolled environments. The generally accepted definition of a controlled environment is a location from which it is evident to the general public that radio frequencies would be transmitting. Such a location would be a communications tower equipped with one or more antennas. An uncontrolled environment is one which the general public would not normally consider a radio transmitting location. Such locations might be building rooftops, cupolas or water tanks.

The "Total Percent" figure determined by T-CAS on sheet 1 of 3 (as corrected by SCLP below) reflects the 1991 Standard for controlled environments. The corrections are as follows: Bell Atlantic Mobile's power densities (antenna numbers 12-17) have been recalculated, as their antennas are actually higher on the tower (relocated from 85 feet to 125 feet). Antenna number 7 has also been recalculated, as the 1991 standard for controlled environments changed from 5.0 to 10.0 mW/sq-cm (increased). Thus the "Total Percent of Safe Limit for all 17 Radio Systems" has changed from 2.5747 to 12.853. (See Note 1 for calculation summary)

When SCLP's power density percentage of 9.370 is added, the total percentage becomes 22.223 for all uses on the tower.

Note 1: All figures refer to "Percent of Safe Limit" column.

2.5747 should have been 25.747 (in Docket No. 150).
25.747 - 0.162 (antenna 7 : 1982) + .081 (antenna 7 : 1991) - 23.853 (all Bell Atlantic antennas at 85 feet) + 11.04 (all Bell Atlantic antennas at 125 feet) + 9.370 (SCLP antennas at 105 feet) = 22.223.

POWER DENSITY ANALYSIS

Sheet 1 of 3

AT THE TOWER BASE, FOR EACH RADIO/ANTENNA SYSTEM

SITE NAME: GREENWICH
TOWER HEIGHT: 180 FEET

PREPARED BY: T-CAS Corp
ON DATE: 05-09-1991

No	OPERATING FREQUENCY (MHz)	EIRP (WATTS)	DISTANCE TO BASE OF TOWER (FEET)	LIMIT OF SAFE EXPOSURE (MW/SQ-CM)	AT THE BASE OF THE TOWER	
					POWER DENSITY (MW/SQ-CM)	PERCENT OF SAFE LIMIT
1	867.500	1641	187	2.892	0.0016153	0.0559
2	822.500	0	171	2.742	0.0000000	0.0000
3	867.500	1641	187	2.892	0.0016153	0.0559
4	822.500	0	171	2.742	0.0000000	0.0000
5	867.500	236	182	2.892	0.0002456	0.0085
6	822.500	0	176	2.742	0.0000000	0.0000
7	18700.000	71447	177	5.000	0.0008093	0.0162
8	47.300	164	189	1.000	0.0001573	0.0157
9	154.100	0	170	1.000	0.0000000	0.0000
10	880.250	164	102	2.934	0.0005454	0.0186
11	880.250	164	102	2.934	0.0005454	0.0186
12	835.250	0	85	2.784	0.0000000	0.0000
13	880.250	4922	85	2.934	0.0233292	0.7951
14	835.250	0	85	2.784	0.0000000	0.0000
15	880.250	4922	85	2.934	0.0233292	0.7951
16	835.250	0	85	2.784	0.0000000	0.0000
17	880.250	4922	85	2.934	0.0233292	0.7951

TOTAL PERCENT OF SAFE LIMIT FOR ALL 17 RADIO SYSTEMS = 2.5747

- NOTES: 1. THE 'LIMITS OF SAFE EXPOSURE' ARE CALCULATED IN ACCORDANCE WITH THE SAFETY LEVELS DEFINED IN ANSI STANDARD C95.1-1982, WHICH WAS ADOPTED BY THE CONNECTICUT LEGISLATURE INTO THE CONNECTICUT GENERAL STATUTES, SECTION 22a-162, IN 1984.
2. POWER DENSITIES ARE CALCULATED IN ACCORDANCE WITH THE METHODS DEFINED IN FCC DOCUMENT 'OST BULLETIN NO. 65', OCTOBER 1985.
3. EIRP (EFFECTIVE ISOTROPICALLY RADIATED POWER) REFERENCES THE RADIATED POWER TO A POINT SOURCE, WHICH YIELDS POWERS 1.6406 TIMES HIGHER THAN ERP (SEE TABLE IN SECTION 13-F).